

Sept 1897

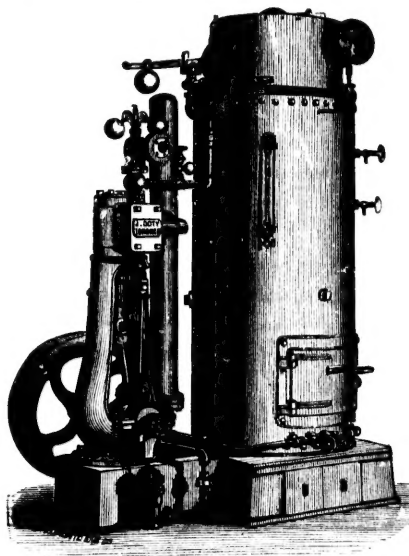
- The Doty - Vertical Steam Engine and Boiler.

MANUFACTURED BY

John Doty Engine Co., Toronto, Ont.

USED IN

Bakeries
Blacksmith Shops
Brush Factories
Brass Foundries
Boot and Shoe Factories
Coffee and Spice Mills
Cheese Factories
Carpenter Shops
Carriage Factories
Clothing Houses
Cigar Factories
Farm Machinery
Foundries
Laundries
Machine Shops



USED IN

Manufacturing
Jewellery Houses
Marble Works
Printing Offices
Paper Box Factories
Portable Grist and Corn
Mills
Paper Bag Factories
Sausage Machines
Tobacco Factories
Tanneries
Wood Yards
Wood Turning Shops
Warehouses

And any duty requiring from 3 to 15-Horse Power.

- PRICES -

3-Horse Power Engine and 4-Horse Power Boiler.....	\$278 00
4 " " 5 " "	345 00
5 " " 6 " "	395 00
6 " " 7 " "	445 00
8 " " 9 " "	545 00
10 " " 12 " "	610 00
13 " " 15 " "	710 00
15 " " 18 " "	875 00

The above prices include Pump or Injector, Governor, Steam and Water Gauges, Safety-Valve, Blow-off, Cast-Iron Base, Grate Bars, Oil Cups, Drain Cocks and Brass Lubricator.

Description of Engine.

WE WOULD call the attention of parties who contemplate putting in steam power to the following points in the construction of our engines and boilers, which make them superior to others:

SIMPLICITY OF DESIGN.

The Boiler and Engine being attached to one base, are easily transported, occupying but little space, and require but little expense to be put into operation. The engine consists of two principal parts, the cylinder and the frame. The slides and pillow blocks are cast solid with the frame, so that it is impossible for them to become loose or out of line. Owing to the vertical position, there is no tendency to side wear of cylinder or piston, and also a great deal less friction. The piston is made with follower and rings exactly the same as in the best class of large engines, and works free and steam-tight. The engine is fitted with heater, by which the heat of the exhaust steam is imparted to the feed water, thereby saving a large percentage in fuel, and much wear and tear of the boiler.

EASY ACCESS TO ALL PARTS.

The connecting rod is fitted with brass bearings and keys, whereby all wear may be taken up. The cross head has adjustable gibs on each side, which are so arranged that they may be adjusted to compensate for any wear. The smoke-box on boiler is made with a moveable top, so that the flues may be cleaned out with ease; which is a very important feature. The boiler is provided with mud-pots, whereby all dirt and sediment may be easily removed.

PERFECT GOVERNOR CONTROL.

Each engine is provided with one of Judson's or Water's celebrated governors, which insures regularity of speed, consequently saves a large amount of steam, as it only allows the steam to pass as the work requires it.

VALVE MOTION.

The ports and passages of the cylinder are arranged and proportioned as in the best locomotive practice, and the valve is faced down to a perfect bearing to its seat.

THE CRANK SHAFT.

Have double bearings, and are made from cast steel, which ensures great strength and durability.

THE BOILER

Is of the upright tubular style, with internal fire-box, having water space all around fire-box and door at the bottom of the boiler. It is made of the best steel plate, by first-class workmen, and is very economical in fuel.

Each boiler is furnished with a pump and heater, but where customers desire it, will put on instead an Inspirator or Injector.

Every engine and boiler is thoroughly tested by steam, before shipment, and all working parts carefully adjusted. A printed card of instructions for setting up and running the engine and boiler is sent out with each.

Prices of Vertical Engines

Without Boilers

3-Horse-power	\$122	8-Horse-power	\$225
4 " "	148	10 " "	300
5 " "	172	13 " "	350
6 " "	195	15 " "	400

These prices include Governor, Oil Cups, Fly-wheel and Pulley, Starting Valve and Lubricator, and two Wrenches.



Vertical Boilers

Without Engines

4-Horse-power, with internal fire-box and water spaces	\$145
5 " " " " " "	165
6 " " " " " "	180
7 " " " " " "	200
9 " " " " " "	225
12 " " " " " "	265
15 " " " " " "	325
18 " " " " " "	400

These prices include Steam Gauge, Gauge Cocks, Glass Water Gauge, Safety Valve, Blow-off Pipe and Cock, Check Valves, Grates, Boiler Base and Smoke-box.



Table of Dimensions and Weights

Of "Doty" Vertical Engines and Boilers

ENGINE.						BOILER.						COMBINED ENGINE AND BOILER.		
HORSE POWER	DIAM. OF CYLINDER	STROKE	DIAM. OF BAND WHEEL	WIDTH OF FACE	REVOLUTIONS PER MINUTE	DIAM. OF SHELL	LENGTH OF SHELL	NUMBER OF TUBES	SIZE OF TUBES	LENGTH OF TUBES	SQUARE FEET OF HEATING SURFACE	FLOOR SPACE OCCUPIED	HEIGHT OVER ALL	WEIGHT
	inches.	inches.	inches.	inches.		inches.	inches.		inches.	inches.		inches.	inches.	lbs.
3	4	4	20	3½	200	24	48	24	2	31	51	26 x 48	65	1200
4	4	6	24	4½	180	26	60	37	2	40	72	30 x 50	80	1600
5	5	6	26	5½	180	30	60	44	2	36	80	34 x 60	80	2000
6	5½	7	28	6½	160	30	66	44	2	41	95	34 x 60	87	2700
8	6½	8	32	7½	160	34	72	60	2	46	125	36 x 70	93	3300
10	7	9	36	8½	150	37	72	70	2	46	162	40 x 72	96	4000
13	8	8	40	9½	150	40	84	90	2	62	207	44 x 84	106	4800
15	9	9	48	12	140	44	84		2			48 x 90	106	5500

John Doty Engine Co.

—MANUFACTURERS OF—

THE REYNOLDS-CORLISS AUTOMATIC CUT-OFF ENGINES

THE MEYERS VARIABLE CUT-OFF ENGINES

PLAIN SIDE VALVE ENGINES

VERTICAL ENGINES



HOISTING AND PILE DRIVING ENGINES

OTTO SILENT GAS ENGINES

MARINE ENGINES



HORIZONTAL RETURN TUBULAR BOILERS

LOCOMOTIVE FIRE-BOX BOILERS

HORIZONTAL FLUE BOILERS

UPRIGHT BOILERS

MARINE BOILERS



HANGERS, SHAFTING AND PULLEYS

CASTINGS OF EVERY DESCRIPTION

BRASS GOODS AND PIPE FITTINGS



Office and Works :

Corner Front and Bathurst Streets

Toronto, Ontario